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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/522,201

02/16/2006

Jean Dolbec

23710

3744

24932 7590 07/07/2009
LAUBSCHER & LAUBSCHER, P.C.
1160 SPA ROAD
SUITE 2B
ANNAPOLIS, MD 21403

EXAMINER

CHANG, TOM Y

ART UNIT

PAPER NUMBER

2456

NOTIFICATION DATE

DELIVERY MODE

07/07/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LLAUBSCHER@LAUBSCHERLAW.COM
info@laubscherlaw.com
asimonini@laubscherlaw.com

Office Action Summary	Application No. 10/522,201	Applicant(s) DOLBEC ET AL.	
	Examiner TOM Y. CHANG	Art Unit 2456	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 20-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to communication received on 04/16/2009. The applicant has amended claim 1, cancelled claims 12-19 and added claims 20-23. Claims 2-11 remain as previously presented. Claims 1-11 and 20-23 are pending.

Drawings

2. Objections to the drawing are withdrawn in response to the applicant's filing of corrected drawings.

Claim Rejections - 35 USC § 101

3. The § 101 have been overcome by claim cancellation are therefore withdrawn.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 21-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 21 and 22 use the term "lambda-level connectivity" and claim 23 uses the term "non-cross-connected lambda". While terms are used in the specification a definition of the terms has not been provided. The examiner can not determine what the applicant intends the terms to mean. Based on inferences from the specification, for examination purposes the term "lambda-level

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connectivity” will be construed to describe signal/connection quality in a path between two or more nodes. The term “non-cross-connected lambda” will be construed to describe paths that between nodes that do not have common interconnecting nodes.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-11 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doshi et al US 6,130,875 and further in view of Henderson et al US 6,058,103.

8. Regarding claims 1, Doshi teaches a method and system for detecting current fiber connectivity between optical nodes in the network, and storing information regarding the current fiber link connectivity (**Col 35 Lines 4-9**). Doshi teaches detecting any cabling changes (**Col 10 Lines 53- 57**), and determining the impact of the cabling changes on service through the network including impacts on cross connect and lightpaths (**Col 13 Lines 47-57**). Doshi does not teach displaying the impact of cabling changes on the service including the impacts on cross-connects and lightpaths. Henderson teaches displaying the impact of cabling changes on the service (**Col 14 Lines 57-67**) including the impacts on cross-connects and lightpaths (**the object model is used for displaying cross-connect (devices that connect links) and lightpaths**

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(links) Col 7 Lines 53-56). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Doshi with Henderson. The reason for this modification would be to provide a graphical method for a network engineer to review and manage failures and other changes to a network.

9. Regarding claim 2, Doshi teaches us the act of determining impact on services to support the step of directing operator resolution of errors caused by the cabling changes**(Col 13 Line 62 - Col 14 Line 7).**

10. Regarding claim 3, Doshi teaches an element management system (EMS) within a node **(Col 10 Lines 36 -43).**

11. Regarding claims 4, Doshi teaches the method is implemented within a network management system (NMS) **(Col 10 Lines 36 -43).** The functions provided at the node are within an optical network and are thus within a network management system.

12. Regarding claim 5, Doshi teaches the method implemented with an operations support system (OSS) **(Col 10 Lines 36 -43).** The node's function of resolving path failures support the operation of the network and thus are part of an operations support system.

13. Regarding claim 6, Doshi teaches the method is implemented as a combination of EMS, NMS and OSS **(Col 34 Lines 13-15).**

14. Regarding claim 7, the teachings of Doshi/Henderson have already been discussed in reference to claim 1. Henderson teaches current fiber connectivity **(Col 14 Lines 32- 36)** and any cabling changes **(failures)** are displayed on a graphical user interface (GUI) **(Col 14 Lines 57-67).** Regarding claim 8, the teachings of Doshi have

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already been discussed in reference to claim 7. Doshi does not teach that the GUI displays a correlation between optical nodes in the network and fiber connectivity.

Henderson teaches that the GUI displays a correlation between optical nodes in the network and fiber connectivity **(Col 15 Lines 7-9)**. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Doshi with Henderson. The reason for this modification would be to provide a graphical method for a network engineer to review and manage failures and other changes to a network.

15. Regarding claim 9, the teachings of Doshi/Henderson have already been discussed in reference to claim 7. Henderson further teaches that the GUI displays cross-connection impacted by a cabling change **(Col 16 Lines 16-24)**.

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16. Regarding claim 10, the teachings of Dosh/Henderson have already been discussed in reference to claim 7. Henderson further teaches that the GUI displays lightpaths impacted by a cabling change **(Col 16 Lines 10–26)**.

17. Regarding claim 11, the teachings of Doshi/Henderson have already been discussed in reference to claim 7. Henderson further teaches that any cabling change must be approved by an operator before initiation of the change **(Col 26 Lines 12-18)**.

18. Regarding claim 20, the teachings of Doshi/Henderson have already been discussed in reference to claim 1. Henderson further teaches wherein impact determining step includes determining if lightpaths have been automatically rerouted off affected optical links **(designer can monitor self restoration capabilities Col 14 Lines 63-67)**.

19. Regarding claim 21, the teachings of Doshi/Henderson have already been discussed in reference to claim 1. Henderson further teaches detecting changes in lambda- level connectivity **(connection quality)** between the optical nodes **(the Q-metric (based on stratum-N synchronization signals) is used to determine a paths communication quality or synchronization management quality Col 16 Lines 51-63)**.

20. Regarding claim 22, the teachings of Doshi/Henderson have already been discussed in reference to claim 21. Henderson further teaches wherein the detected changes in lambda-level connectivity are detected using unique data patterns **(synchronization/timing signals Col 16 Lines 58-62)** that are communicated between

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adjacent ones of the optical nodes **(the timing signals are propagated to adjacent signals Col 21 Lines 42-45).**

21. Regarding claim 23, the teachings of Doshi/Henderson have already been discussed in reference to claim 22. Henderson further teaches wherein the unique data patterns are communicated over each non-cross-connected **(diverse paths between two endpoints that have different intervening nodes) lambda (timing signals are sent to all paths in a network. In Henderson the purpose is for calculating the q-metric using the best paths among all the alternate paths between endpoints Col 18 Lines 31-41).**

Applicant's Remarks

The applicant argues the prior art of reference Doshi does not teach the limitations of amended claim 1. The examiner finds this argument not persuasive since the applicant added elements of claims 9 and 10 into claim 1, which was rejected based upon obviousness with the Henderson reference. The rejection for claim 1 has been likewise updated. The examiner disagrees with the applicant's assertion that Henderson does not teach lightpaths. Henderson teaches determining the connectivity of paths between endpoints in a network. Since the network uses optical media the paths are correctly construed as lightpaths.

Applicant further argues that Henderson does not teach a human operator approving changes. The examiner disagrees with this argument for two reasons. First

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and primarily being that the term “operator” does not exclude automatic resolution of the failing paths. Operator can be used to describe both a human engineer and a computer system acting as an operator. Secondly Henderson does in fact teach operator intervention in the form of a network engineer see Col 18 Line 64 - Col 19 Line 1. Therefore while being fully considered the examiner finds the applicant's arguments not persuasive.

Conclusion

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TOM Y. CHANG whose telephone number is (571)270-5938. The examiner can normally be reached on Monday - Thursday from 9am to 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit, can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/T. Y. C./
Examiner, Art Unit 2456
06/24/2009

/Bunjob Jaroenchonwanit/
Supervisory Patent Examiner, Art Unit 2456